

MASIMO.1FW1C4



4

PATENT

#14
CA
11-15-02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Diab, et al.) Group Art Unit 3736
Appl. No. :	09/757,444)
Filed :	January 9, 2001)
For :	SIGNAL PROCESSING APPARATUS AND METHOD)
Examiner :	Eric Winakur)

Comments on Statement of Reasons for Allowance

In the Examiner's Statement of Reasons for Allowance, the Examiner mentions several references. Although it does not impact the reasons stated for patentability, Applicants wish to comment on the Examiner's statement that "others teach open-loop adaptive systems, see Conlon et al. (USPN 4,960,126) who teach an ECG synchronized pulse oximeter." Because the IEEE Standard Dictionary of Electrical and Electronic Terms, defines an adaptive system as "a system that has a means of monitoring its own performance and a means of varying its own parameters by *close-loop* action to improve its performance" (Dictionary page attached as Exhibit 1), under that definition, Conlon does not teach an "adaptive system." Although the claims stand allowed over this prior art, and the Examiner's characterization does not impact patentability, Applicants submit these comments to avoid any presumption of acquiescence.

Respectfully submitted,
KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: Oct. 2, 2002

By: Stephen C. Jensen
Stephen C. Jensen
Registration No. 35,556
Attorney of Record
2040 Main Street, Fourteenth Floor
Irvine, CA 92614
(949) 760-0404

EXHIBIT 1

ANSI/IEEE Std 100-1984

Third Edition

**IEEE
Standard Dictionary
of
Electrical and
Electronics
Terms**

**Frank Jay
Editor in Chief**

**J. A. Goetz,
Chairman
Standards Coordinating Committee
on Definitions (SCC 10)**

Membership

S. Aronow	C. H. Liu
D. C. Azbill	E. E. Loebner
T. H. Barton	A. C. Lordi
N. M. Blachman	A. Ludbrook
L. R. Bloom	G. H. Mallinson
D. G. Bodnar	G. E. Martin
J. Brazee	D. T. Michael
R. L. Breerton	J. J. Mikos
R. W. Brodersen	A. J. Montalbano
N. M. Burstein	E. I. Muehldorf
E. F. Chelotti	B. C. Nowlan
F. A. Denbrock	E. S. Patterson
A. J. Estin	J. G. Pearce
P. Farang	F. J. Saal
H. Fickenscher	W. G. Schmidt
E. S. Gillespie	R. M. Showers
D. W. Jackson	H. H. Smith
R. H. Krambeck	R. B. Squires
B. J. Leon*	R. S. Turgel
F. J. Levitak	C. E. White

†Deceased

*Past-Chairman



Published by
The Institute of Electrical and Electronics Engineers, Inc.
New York, NY



Distributed in cooperation with
Wiley-Interscience, a division of John Wiley & Sons, Inc.

Best Available Copy

adaptive control system. See: control system; adaptive.

adaptive equalization (data transmission). A system that has a means of monitoring its own frequency response characteristics and a means of varying its own parameters by closed-loop action to obtain the desired overall frequency response. 59

adaptive maintenance (software). Maintenance performed to make a software product usable in a changed environment. See: maintenance; software product. 434

adaptive system. A system that has a means of monitoring its own performance and a means of varying its own parameters by closed-loop action to improve its performance. See: system science. 209

Adecock antenna. A pair of vertical antennas separated by a distance of one-half wavelength or less, and connected in phase opposition to produce a radiation pattern having the shape of the figure eight in all planes containing the centers of the two antennas. See also: antenna. 111

add and subtract relay. A stepping relay that can be pulsed to rotate the movable contact arm in either direction. See: relay. 259

adder. A device whose output is a representation of the sum of the two or more quantities represented by the inputs. See: half-adder. See: electronic analog computer. 235, 210, 54, 77

addition agent (electroplating). A substance that, when added to an electrolyte, produces a desired change in the structure or properties of an electrodeposit, without producing any appreciable change in the conductivity of the electrolytes, or in the activity of the metal ions or hydrogen ions. See: electroplating. 328

address (A) (1) (semiconductor memory). Those inputs whose states select a particular cell or group of cells. 441

(2) (electronic computations and data processing). (A) An identification, as represented by a name, label, or number, for a register, location in storage, or any other data source or destination such as the location of a station in a communication network. (B) Loosely, any part of an instruction that specifies the location of an operand for the instruction. (C) (electronic machine-control system). A means of identifying information or a location in a control system. Example: The x in the command $x 12345$ is an address identifying the numbers 12345 as referring to a position on the x axis. 224, 207, 255, 77

(3) (software). (A) A character or group of characters that identifies a register, a particular part of storage, or some other data source or destination. (B) To refer to a device or an item of data. See: data. 434

address, effective (computing systems). The address that is derived by applying any specified rules (such as rules relating to an index register or indirect address) to the specified address and that is actually used to identify the current operand. 77

address format (computing machines). The arrangement of the address parts of an instruction. Note: The expression plus-one is frequently used to indicate that

one of the addresses specifies the location of the next instruction to be executed, such as one-plus-one, two-plus-one, three-plus-one, four-plus-one. 255, 77

address part. A part of an instruction that usually is an address, but that may be used in some instructions for another purpose. See: instruction code. 235

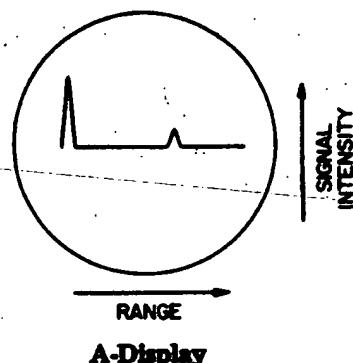
address register (computing machines). A register in which an address is stored. 255, 77

address space (software). The range of addresses available to a computer program. See: addresses; computer programs. 434

address, tag. See: symbolic address.

ADF. See: automatic direction finder.

A-display (radar). A display in which targets appear as vertical deflections from a horizontal line representing a time base. Target distance is indicated by the horizontal position of the deflection from one end of the time base. The amplitude of the vertical deflection is a function of the signal intensity. 13



A-Display

adjacent channel (data transmission). The channel whose frequency is adjacent to that of the reference channel. 59

adjacent-channel attenuation (receivers). See: selectivity.

adjacent channel interference (data transmission). Interference, in a reference channel, caused by the operation of an adjacent channel. 59

adjacent-channel selectivity and desensitization (receiver performance) (receiver). A measure of the ability to discriminate against a signal at the frequency of the adjacent channel. Desensitization occurs when the level of any off-frequency signal is great enough to alter the useable sensitivity. See: receiver performance. 181

adjoint system. (1) A method of computation based on the reciprocal relation between a system of ordinary linear differential equation and its adjoint. Note: By solution of the adjoint system it is possible to obtain the weighting function (response to a unit impulse) $W(T, t)$ of the original system for fixed T (the time of observation) as a function of t (the time of application of the impulse). Thus, this method has

Best Available Copy

Library of Congress Catalog Number 84-081283

© Copyright 1984

The Institute of Electrical and Electronics Engineers, Inc.

*No part of this publication may be reproduced in any form,
in an electronic retrieval system or otherwise,
without the prior written permission of the publisher.*

August 10, 1984

SH09332

Best Available Copy,



PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Box ISSUE FEE
 Commissioner for Patents
 Washington, D.C. 20231
 Fax (703)746-4809

KR

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Please type or print. Lightly mark-up with any corrections of the Block 1)

20995 7990 03/23/2002
KNOBBE MARTENS OLSON & BEAR LLP
 620 NEWPORT CENTER DRIVE
 SIXTEENTH FLOOR
 NEWPORT BEACH, CA 92660

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificates of Mailing or Transmission
 I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above, or being facsimile transmitted to the USPTO, on the date indicated below.

Stephen C. Jensen, #35,556		(Depositor's name)
<i>Stephen C. Jensen</i>		(Signature)
<i>Oct 2, 2002</i>		(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,444	01/09/2001	Mohamed Kheir Diab	MASIMO.1FW1C4	8786

TITLE OF INVENTION: SIGNAL PROCESSING APPARATUS AND METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1280	\$300	\$1580	10/23/2002

EXAMINER	ART UNIT	CLASS-SUBCLASS
WINAKUR, ERIC FRANK	3736	600-330000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
 Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
 "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Masimo Corporation

Irvine, CA

Please check the appropriate assignee category or categories (will not be printed on the patent) individual corporation or other private group entity government

4a. The following fee(s) are enclosed:

4b. Payment of Fee(s):

- Issue Fee
 Publication Fee
 Advance Order - # of Copies 10

- A check in the amount of the fee(s) is enclosed.
 Payment by credit card. Form PTO-2038 is attached.
 The Commissioner is hereby authorized to charge the required fee(s), or credit any overpayment, to Deposit Account Number 1410 (enclose an extra copy of this form).

Commissioner for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

(Authorized Signature) *Stephen C. Jensen* (Date) *Oct 2, 2002*

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

10/07/2002 MAHMOUD 00000171 09757444

01 FC:142	1280.00 OP
02 FC:195	300.00 OP
03 FC:561	30.00 OP

Best Available Copy

TRANSMIT THIS FORM WITH FEE(S)